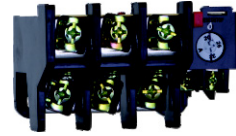


▶ Usage and its scope of application

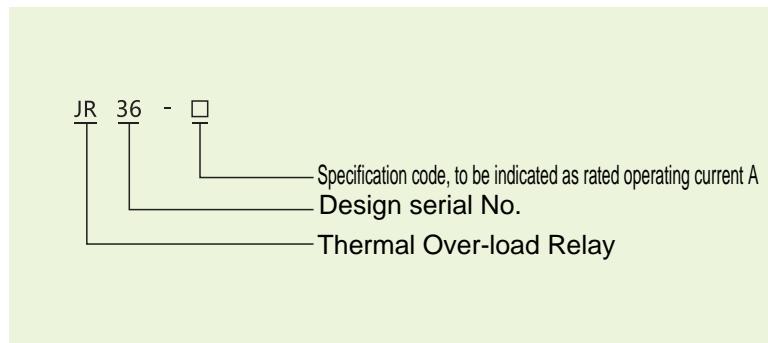
JRS36 series bimetal type thermal over-load relay is suitable for the circuit of AC 50Hz, rated operating voltage U_e : AC 690V, current of 0.25~160A, as the use of over-load and break phase protection for the AC motor.

Thermal relay has the functions of the setting current is adjustable, temperature compensation, break phase protection, optional selection of auto-reset and manual reset, it can check the circuit's action flexibility, and can manually break the NC contact (NO contact close), its external dimension and installation dimension is the same with JR16B, which is a new generation of ideal product.

This product confirms to: GB14048.4, IEC60947-4-1 etc. standards.



▶ Model and its implication



▶ Normal operating condition and installation condition

3.1 Ambient temperature: $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$, and the average value within 24h does not exceed $+35^{\circ}\text{C}$

3.2 Altitude of the installation place does not exceed 2000m;

3.3 Atmosphere condition: The relative humidity does not exceed 50% when it is at $+40^{\circ}\text{C}$, it allowed relatively high humidity at the relatively low temperature, for example, the relative humidity reaches 90% when $+20^{\circ}\text{C}$, and it should take special measurements when there produced the condensation on the product due to the temperature variation.

3.4 It should be at the no explosion danger medium, and the medium without the gas that cannot corrode the metal and damage the insulation as well as the places that without conductive dust.

3.5 Grade of pollution: 3

3.6 Installation category: III

3.7 Installation position: installed at the normal position, the gradient between the installation side and the vertical side does not exceed $\pm 5^{\circ}$, and without obvious vibration and impact.

3.8 Protection grade: IP 20

▶ Main technique parameter

4.1 Rated current of thermal relay, rated current, current setting scope of thermal parts and recommended fuse model to see table 1

Table 1

| Model | Rated current of thermal relay (A) | Thermal parts | | Recommended fuse model |
|----------|------------------------------------|----------------------------------|-------------------------|------------------------|
| | | Rated current of thermal parts A | Current adjusting scope | |
| JR36-20 | 20 | 0.35 | 0.25~0.35 | RDT16-00-2 |
| | | 0.5 | 0.32~0.5 | |
| | | 0.72 | 0.45~0.72 | |
| | | 1.1 | 0.68~1.1 | |
| | | 1.6 | 1.0~1.6 | RDT16-00-4 |
| | | 2.4 | 1.5~2.4 | RDT16-00-6 |
| | | 3.5 | 2.2~3.5 | RDT16-00-10 |
| | | 5 | 3.2~5 | |
| | | 7.2 | 4.5~7.2 | |
| | | 11 | 6.8~11 | RDT16-00-25 |
| | | 16 | 10~16 | RDT16-00-32 |
| 22 | 14~22 | RDT16-00-50 | | |
| JR36-32 | 32 | 16 | 10~16 | RDT16-00-32 |
| | | 22 | 14~22 | RDT16-00-50 |
| | | 32 | 20~32 | RDT16-00-63 |
| JR36-63 | 63 | 22 | 14~22 | RDT16-00-50 |
| | | 32 | 20~32 | RDT16-00-63 |
| | | 45 | 28~45 | RDT16-00-100 |
| | | 63 | 40~63 | RDT16-00-125 |
| JR36-160 | 160 | 63 | 40~63 | RDT16-00-125 |
| | | 85 | 53~85 | RDT16-1-160 |
| | | 120 | 75~120 | RDT16-1-250 |
| | | 160 | 100~160 | RDT16-2-315 |

4.2 Action characteristics when thermal relay three phase balance to see table 2

Table 2

| No. | Multiple of setting current | Action time tp | | Predict results | Initial status | Ambient temperature | |
|-----|-----------------------------|-----------------|---------------|-----------------|------------------------------------|---------------------|-------------|
| 1 | 1.05 | > 2h | | No action | Cool status | 20±5°C | |
| 2 | 1.20 | < 2h | | Action | Thermal status (after serial No.1) | | |
| 3 | 1.5 | Releasing grade | 10A | < 2min | | | Action |
| | | | 10 | < 4min | Action | | |
| 4 | 7.2 | 10A | 2s < tp ≤ 10S | | Action | | Cool status |
| | | | 10 | | 4s < tp ≤ 10S | | |

Releasing grade: JR36-20, JR36-32 is 10A grade, JR36-63, JR36-160 is 10 grade.

4.3 Action characteristics when thermal relay three phase unbalance to see table 3

Table 3

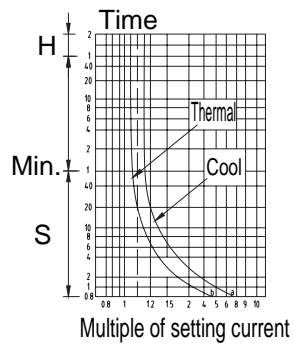
| No. | Multiple of setting current | | Action time | Predict results | Initial status | Ambient temperature C |
|-----|-----------------------------|---------------|-------------|-----------------|------------------------------------|-----------------------|
| | Any two phases | Another phase | | | | |
| 1 | 1.0 | 0.9 | > 2h | No action | Cool status | 20±5 |
| 2 | 1.15 | 0 | < 2h | Action | Thermal status (after serial No.1) | |

4.4 Basic parameter of auxiliary circuit to see table 4

Table 4

| | |
|--------------------------------------|------|
| Rated insulation voltage U_i (V) | 380 |
| Setting thermal current I_{th} (A) | 10 |
| Rated operating current I_e (A) | 0.47 |

4.5 Action characteristics curve of thermal relay to see map 1

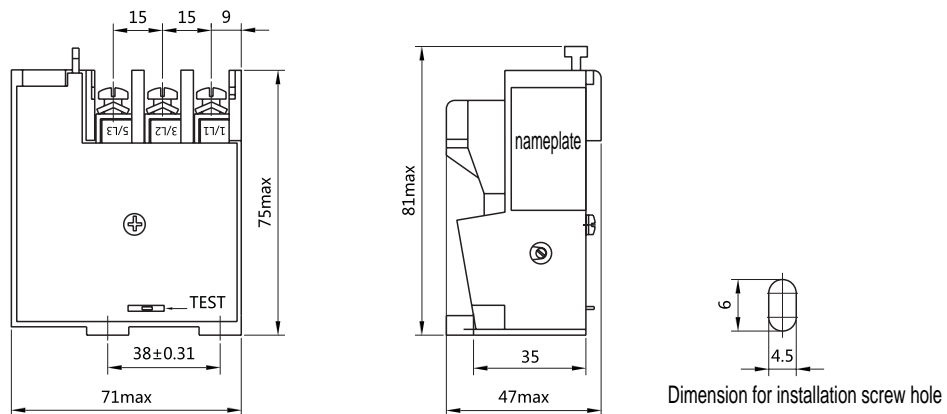


- A. Three phase balance, unbalance, starting by cool status;
- B. Three phase balance, break phase, starting by thermal status

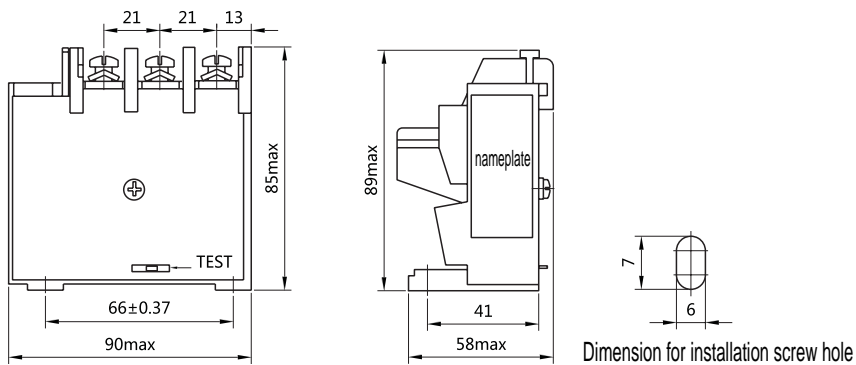
Map 1 Action scope curve

▶ External and installation dimension

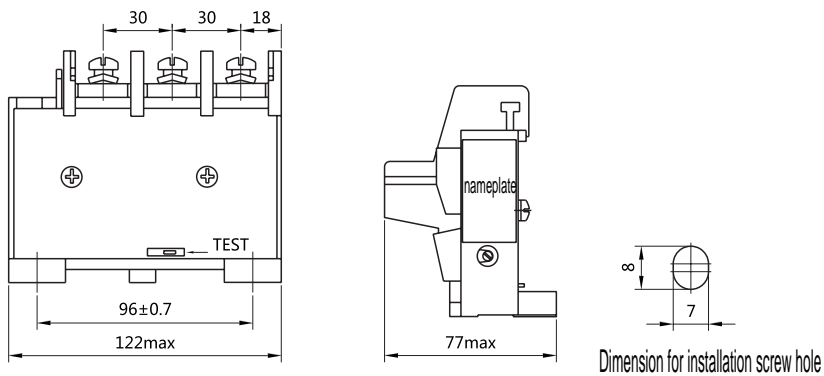
External and installation dimension of thermal relay to see map 2~4



Map 2 External and installation dimension for JR36-20, JR36-32



Map 3 External and installation dimension for JR36-63



Map 4 External and installation dimension for JR36-160

▶ Ordering Notice

It required to be noted: Product model, specification, setting current adjusting scope and required quantity.
For example: JR36, 6.8~11A, 200 pcs